

become something it never had been before — a hotbed of gene therapy research. It was a remarkable opportunity. Mulligan was offered one laboratory at the Children's Hospital to work on the basic science of viral vectors, and a second laboratory in a central Harvard building that will manufacture the vectors for use in human trials.

Despite all these enticements, Mulligan did not agree to move — and leave a position at the Whitehead that he fondly recalls as “the best job in the world” — until he became convinced that his Harvard colleagues were skeptics too. “There was long-term optimism mixed with scientific conservatism,” the ideal mix. “I didn't have to cheapen my way of doing things.”

In Mulligan's view, he himself and Harvard are not the only beneficiaries. The fact that Harvard is taking an active role in gene therapy will also increase the chances that gene therapy will be better sooner. Because of Harvard's conservatism, it will not repeat the mistakes of others and rush into human trials without a long-term plan for each disease it studies.

Furthermore, Harvard provides an academic, rather than a corporate setting for the work. These days, major researchers in basic science fields have so many industry affiliations that it often makes it difficult for them to work with each other. Mulligan believes Harvard offers an unusual opportunity to bring the best minds together. “It's exactly the sort of environment needed for the basic research that will drive the development of gene therapies.”

For Mulligan, says hematologist Stuart Orkin of the Children's Hospital, the Harvard offer presented a very simple choice: either make gene therapy work yourself or stop criticizing it. “In other words, put up or shut up,” says Orkin. “This is putting up.”

Steven Dickman is a freelance science writer based in Cambridge, Massachusetts.

## Gazetteer

### The Novartis Foundation

**What is it famous for?** The name isn't well-known yet. For now, it's probably best described as ‘the scientific charity formerly known as The Ciba Foundation’.

**Why the change of name?** The Ciba parent company no longer exists. It merged with that other pharmaceuticals giant Sandoz in December 1996 to form a new company, Novartis. In response, the Foundation adopted the name of its new benefactor on 1 September 1997.

**When was it founded?** Robert Käppeli, managing director of the Ciba company of Basel, Switzerland, persuaded the company to form a charitable Trust in 1947, to promote international cooperation in medical, chemical and biological research. He pushed strongly for it to be located in London, partly because English was already becoming the international language of science, but also because the laws under which UK-based charities operate would ensure complete independence for the Foundation, and he insisted the two should have no commercial ties. (Also, being Swiss, he had presumably considered the fact that charities in the UK get considerable tax breaks.)

**Where is the Foundation?** It took a while to find a suitable site in the bomb-damaged centre of London, but Ciba restored a fine building in Portland Place, near Regent's Park, and the doors were opened in 1949. Because the neighbourhood is thick with embassy staff and private medical practitioners from nearby Harley Street, there is a prevalence of suits and flashy cars not familiar to most scientists outside the Howard Hughes Medical Institute.

**What does the Foundation do?** It is best known for its Symposia — held eight times a year — and in the UK for its efforts to bridge the gap between scientists and the media. It also provides a very central and affordable hotel service at Portland Place, used by those few visiting scientists in the know.

**How do I get to a Symposium?** You don't, unless you're already a force to be reckoned with in your field, or one of the few Foundation bursars. The emphasis is on relaxed and intimate discussion, so groups are limited to 25 invited guests. Unlike the situation at many other meetings, the ‘audience’ are at least as eminent as the ‘speakers’, and there is slightly more time set aside for discussion than for talks — so it's not simply a case of a few hurried questions before coffee. Topics must be interdisciplinary, and the aim is to select burgeoning fields that will become hot within about the next year. In an effort to reach a wider audience without sacrificing the cosy atmosphere of the meetings, the proceedings are recorded and published almost verbatim.

**How does it promote science elsewhere?** The Foundation maintains a database of leading experts in science, medicine and technology — the Media Resource Service — which European journalists can use to contact an expert in any given field (from asteroids to BSE). It also organizes a public debate at the British Association for the Advancement of Science Annual Science Festival — this year, on cross-species organ transplantation.

**How is it financed?** The Foundation has always been funded on an annual basis by a donation from the founder company — £1.3 million in 1996. So far, the donations have remained fairly consistent, being tied to the needs of the Foundation, rather than to the fortunes of the company. It remains to be seen whether anything will change apart from the name.